

I CLAIM:

1. A composite non-powered luminous panel comprising:
a piece of light transmissive material; and
a layer of luminous material provided on one side of said piece of light transmissive material, said luminous material comprising a light transmissive resinous material containing a suspension of luminescent particles.
2. The non-powered composite luminous panel according to claim 1 further comprising a second piece of light transmissive material provided on other side of the layer of luminescent material.
3. The non-powered composite luminous panel according to claim 2 wherein the light transmissive material is selected from the group consisting of transparent or translucent glass and plastic.
4. The non-powered composite luminous panel according to claim 3 wherein the resinous material comprises a clear polyester or styrene resin.
5. The non-powered composite luminous panel according to claim 4 further comprising indicia printed on said luminous panel.
6. The non-powered composite luminous panel according to claim 1 wherein the luminous particles are comprised of $\text{MO} \cdot a(\text{Al}_{1-b}\text{B}_b)_2\text{O}_3 : c\text{R}$ wherein:

$$0.5 \leq a \leq 10.0,$$

$$0.0001 \leq b \leq 0.5 \text{ and}$$

$$0.01 \leq c \leq 0.2,$$

MO represents at least one divalent metal oxide selected from the group consisting of MgO, CaO, SrO and ZnO and R represents Eu and at least one additional rare earth element selected from the group consisting of Pt, Nd, Dy and Tm.
7. The non-powered composite luminous panel according to claim 1 wherein the luminescent particles are comprised of a sinter expressed by a general formula $\text{MO} \cdot (n-x) \{ a \text{Al}_2\text{O}_3^{\alpha} \div (1-a) \text{Al}_2\text{O}_3^{\gamma} \} \text{B}_2\text{O}_3 : \text{R}$ wherein M represents an alkaline earth metal, R represents a rare earth element, $0.5 < a \leq 0.99$, $0.001 \leq x \leq 0.35$, $1 \leq n \leq 8$ and a part of M may be replaced with at least one alkaline earth metal selected from the group consisting of Mg, Ca and Ba.

8. The non-powered composite luminous panel according to claim 1 wherein the luminous particles comprise a luminescent material which absorbs light from a light source and reemits the light energy in a first wavelength spectrum when the light source is removed mixed with a material selected from the group consisting of fluorescent colorants and optical brighteners which are excited by absorbing light at a first wavelength spectrum and reemitting the absorbed light at a second wavelength spectrum.

9. The non-powered composite luminous panel according to claim 2 wherein a partial or half silvered layer is provided on the exterior surface of adhesive light transmissive material and the second piece of light transmissive material.

10. The non-powered composite luminous panel according to claim 2 wherein a top surface of the second piece of light transmissive material is provided with a completely mirrored surface.

11. The non-powered composite luminous panel according to claim 2 wherein a bottom surface of the second piece of light transmissive material is provided with a completely mirrored surface.